Selection of the DUTCH KNOWLEDGE BASE FOR TEACHER EDUCATORS 2012 - reconstructed

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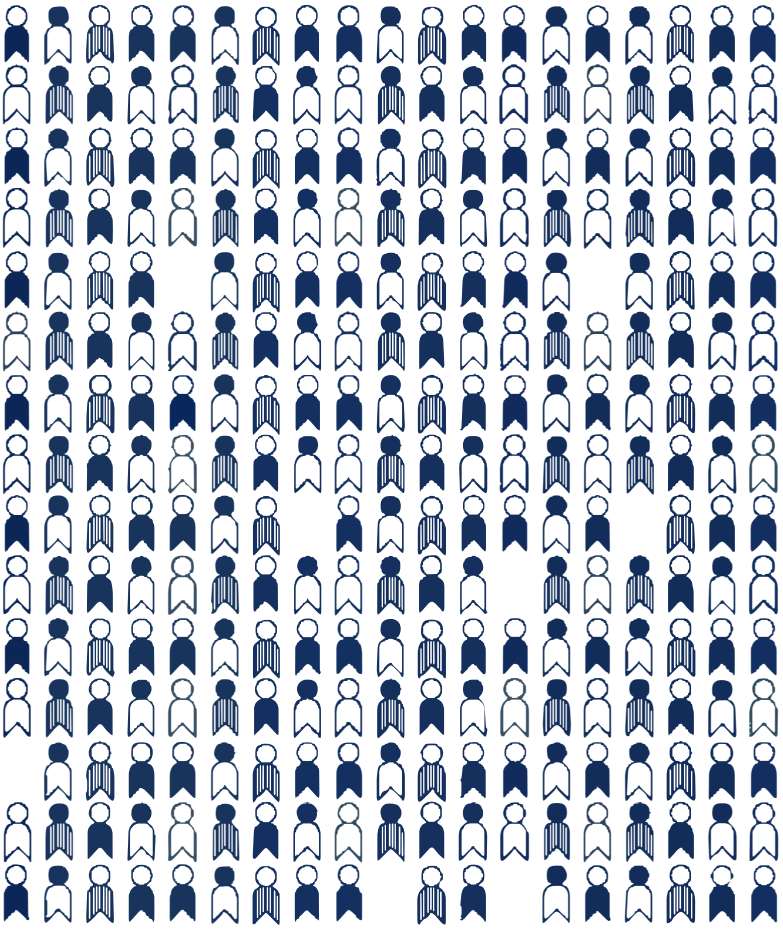
2020



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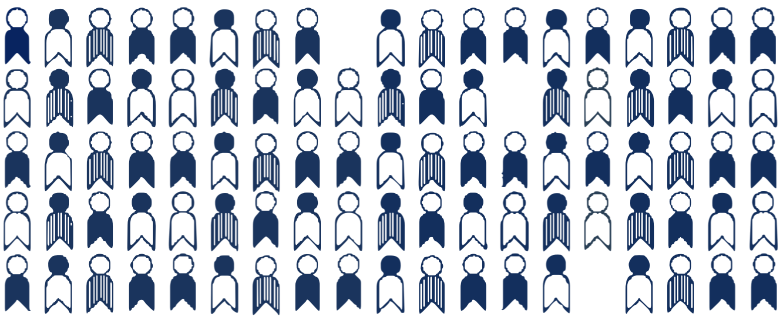

VELON
Vereniging Lerarenopleiders Nederland

selection of the DUTCH KNOWLEDGE BASE FOR TEACHER EDUCATORS

2012

reconstructed

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VELON
Vereniging
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Contents

Introduction

This Knowledge Base of Teacher Educators is a reconstruction of the English version of a selection of the Dutch Knowledge Base of Teacher Educators 2012[1]. The original, lost, version had a web-based structure and was published on the website of the Dutch Association of Teacher Educators (VELON).

Knowledge base

A knowledge base is intended to help professionals and a professional community to get to grips with the essential knowledge needed for their professional practices. Since the eighties, several attempts have been made to identify the knowledge *teachers* should learn and teacher educators should teach (Shulman, 1987; Valli &Tom, 1988, Verloop, Van Driel, & Meijer, 2001). Valli and Tom (1988) argue that an adequate framework for such a knowledge base is essential. It should cover not only the different domains (e.g. content knowledge, learner knowledge), but also meet criteria regarding the kind of relevant knowledge. On the latter, Valli and Tom distinguish between scholarly and practical relevance: a knowledge base should comprise knowledge and forms of inquiry based on traditional academic disciplines, as well as wisdom of practice or craft knowledge. Verloop, Van Driel, and Meijer (2001) agree with this position, and argue that along with formal propositional knowledge, teacher practical knowledge should also be included in a knowledge base of teachers. They note that by identifying the common elements in teacher knowledge, justice can be done to the complex and specific nature of teacher knowledge. Valli and Tom (1988) also distinguish a multiplicity criterion (room for competing explanations, perspectives and theories), a relatedness criterion (the "how"-question must be related to goals, values and meanings having their roots in the social and historical context), a usefulness criterion (the knowledge base should encourage making a difference in the professional practice), and a reflectivity criterion (the knowledge base should encourage thoughtfulness about educational practices).

Shulman and Shulman (2004) choose a holistic approach and have developed a model combining general professional knowledge with complexity and individual differences (compare Jörg, Davis, & Nickmans, 2007). Following Shulman and Shulman (2004), a knowledge base can be described as the shared knowledge of the community of professionals, in our case of teacher educators. They view such a knowledge base not as static, but as dynamic and growing.

Shulman and Shulman redefined the different kinds of knowledge that should constitute a knowledge base using five clusters: vision, motivation, understanding, practice, and reflection (Figure 1). This implies that a teacher educator:

a. has a well-developed vision, directed towards teacher development; he/she can articulate his/her convictions, presuppositions and judgments and relate them to the social context and moral reasoning (disposition).
b. is motivated, shows compassion, endurance, trust and respect, and takes responsibility (motivation).

[1] The reconstruction has been made by Jurriën Dengerink. Mieke Lunenberg and Jurriën Dengerink are both responsible for the content of the knowledge base. The original knowledge base was developed for VELON by the Education Center of the Vrije Universiteit with a Development group consisting of Jurriën Dengerink, Marijke Gommers, Fred Korthagen, Bob Koster, Annette Lievaart, Mieke Lunenberg, Bruno Oldeboom and Klaas van Veen. Eventually about 60 authors contributed to the Dutch knowledge base, which was edited by Mieke Lunenberg and Jurriën Dengerink. The extensive Dutch version can be retrieved here.

c. has a thorough understanding of what has to be taught, as well as how to teach it. This category is quite large and encompasses theoretical, methodical and practical (craft) knowledge (cognition).
d. is able to engage in appropriate performances in practice, in all its complexity (performance). Such skills will develop slowly over time.
e. learns from experience by connecting e.g. practice with theory or with vision in a reflective manner, so that he/she becomes more conscious of his/her performances, understandings and dispositions, may adjust or develop them, and bring them in accordance with each other (reflection).

Shulman and Shulman stress that there is an ongoing interaction between an individual professional and the community. Figure 1 shows the characteristics of a community of professionals and the interaction between the individual professional and the professional community.

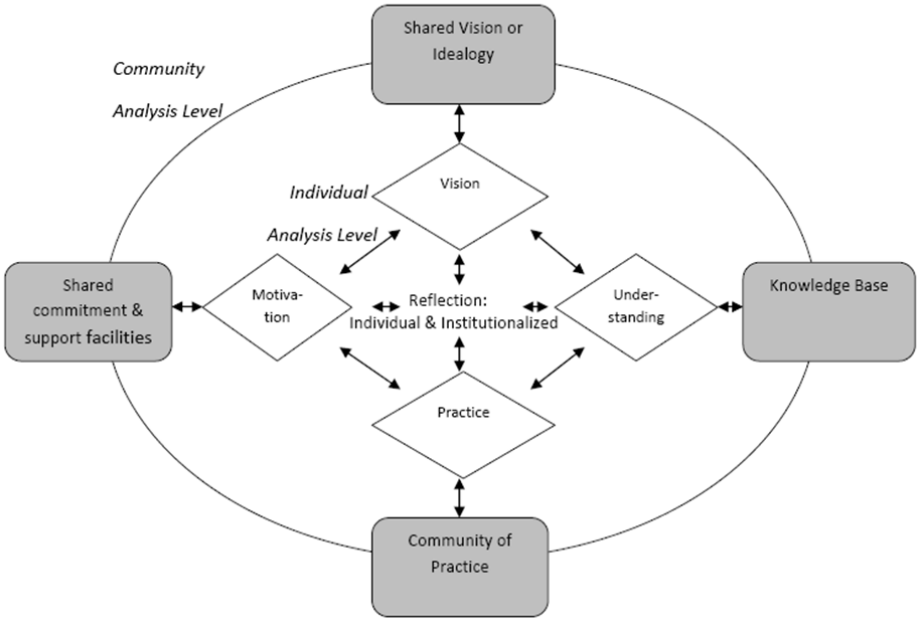

Figure 1. Interaction between a community of professionals and the individual professional (Shulman & Shulman, 2004).

Next, Shulman and Shulman (2004) state that a knowledge base consists of shared knowledge (knowledge a team or community should have), and distributed knowledge (knowledge each member should have).

Based on this model, we define a knowledge base of teacher educators as follows:

A knowledge base of teacher educators is a structured and easily accessible collection of knowledge of the professional community. It includes theoretical, pedagogical and practical knowledge, and offers teacher educators the opportunity to confirm, interconnect, share and develop their professional knowledge, vision, motivation and practices.

The Dutch Knowledge Base

The Knowledge Base of Teacher Educators consists of 10 domains:

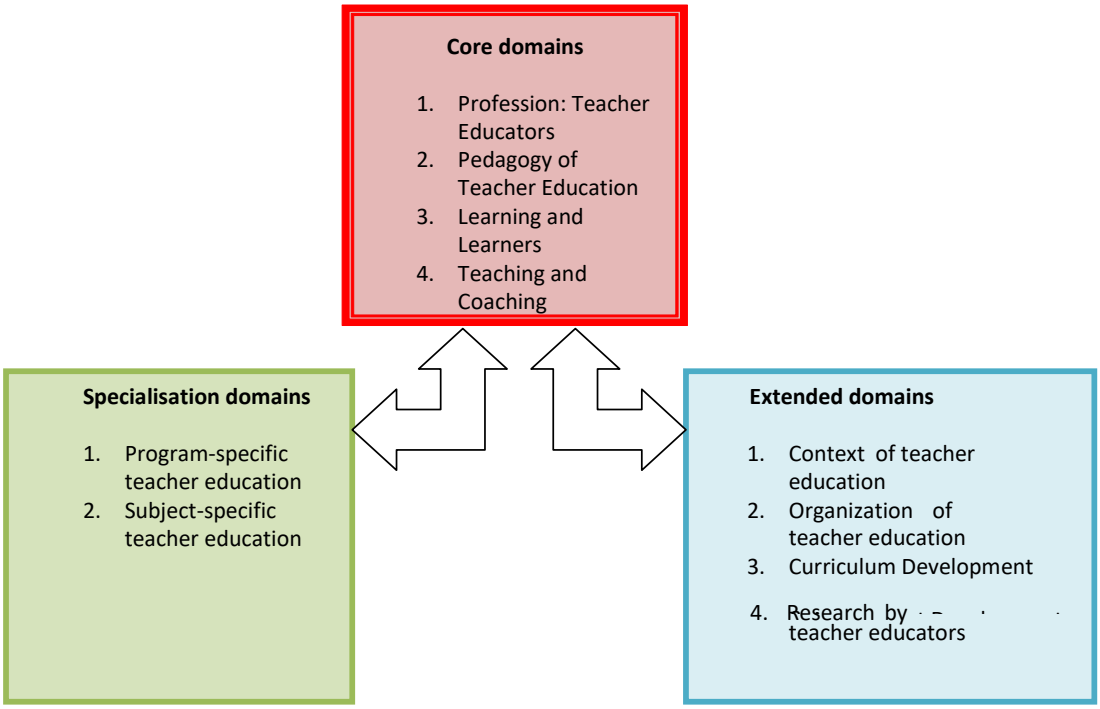

Figure 2. Domains of the Dutch Knowledge base of teacher educators

The core domains include the knowledge that every teacher educator should have (shared knowledge). Knowledge of the other domains should be present in every team (distributed knowledge). The two specialization domains are related to the specific context in which the teacher educator works; they require specific knowledge. A teacher educator can develop expertise in the four extended domains during the career.

The content of each of the ten domains is structured on the basis of four or five leading questions. These guiding questions can be answered from different perspectives. We distinguish three perspectives for each question: a theoretical perspective, a practical perspective and a developmental perspective. The contributions from a theoretical perspective take the form of encyclopedic texts: two or three pages based on existing research give a concise overview that can answer the leading question. The contributions from a practical perspective can vary in form: from video clips to written cases. The contributions from the developmental perspective consist of a concise documented bibliography, which contains both professional publications and scientific publications, and a reflective contribution.

In the table below, this structure is elaborated in an exemplary way for the core domain ‘profession teacher educator’:

Domain **Profession teacher educator**	*Theoretical perspective*	*Practical perspective*	*Developmental perspective*	
			Further reading	*Reflection and discussion*
What is specific to the teacher educator's profession				
What types of educators can be distinguished?				
How do you become a teacher educator				
How do you keep developing?				

Table 1: Structure of a domain of the Dutch knowledge base of teacher educators

The appendix of this document contains a list of all the domains and leading questions of the Dutch knowledge base. The reconstructed Dutch version contains 120 contributions. To offer the international community of teacher educators an impression of the Dutch knowledge base of teacher educators a selection of contributions have been translated in English. This English version contains the eight contributions from a theoretical perspective of the first two domains of the Dutch knowledge base of teacher educators.

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Profession: teacher educators

What is specific to the teacher educator's profession?

Mieke Lunenberg and Jurriën Dengerink

Introduction

What is specific to the profession of teacher-educator? How does this profession distinguish itself from other, closely related professions such as teacher, trainer, or educational specialist?

The answer to these questions touches on the essence of this knowledge base of teacher educators. After all, the development of a knowledge base of teacher educators only makes sense if we can characterize the professional group.

The recognition and acknowledgment of teacher educator as an autonomous profession is a recent development. Until the beginning of the 19th.century, Dutch teachers were practice trained by more experienced colleagues. The rise of the teacher training colleges (the precursors of the present *pabo´s* i.e. training colleges for primary education) signified an institutionalization of this training, and resulted in the colleges hiring individuals who were thought to possess the knowledge and skills necessary for training and educating future teachers (Swennen, 2005; Van Essen, 2006; Lunenberg, 2007).

In 1921, the part-time so-called *MO-opleidingen* (secondary school teacher-certification programmes) were established, which trained for the state secondary teacher certification, and in 1979 the four-year, initially two-subject, fulltime grade-two teacher training programmes (the so-called *NLO´s* i.e. new teacher-training programmes), which merged in 1986 to become the present *HBO* (i.e. Higher Vocational Education) teacher-training programmes for secondary education. The *STOAS* (i.e. agrarian teacher-training), *ALO´s* (i.e. Academies for Physical Training), and the *Arts* teachers were trained and educated in the context of the *HBO*. Since 1863, a parallel university programme also gave access to secondary school teaching. It was only since 1981 that the educational-pedagogical aspects of teaching received full attention with the introduction of the so-called two-phase (lower/junior and upper/senior phase) secondary school structure.

The youngest branch on the extensive teacher education tree is that of the school-based trainers: renewed attention to practice-based training, but this time not by ´merely´ experienced teachers, but by school-based training professionals.

So, teacher educators are employed in various educational settings (school, institution) supporting various sectors (primary and secondary education), with specifically within secondary education specializations regarding the phase in which, the school subject, etc. Next to their primary task (educating future teachers), many teacher educators have in addition a substantial task supervising the induction and advanced professional development of teachers. All in all, teacher educators form a mixed professional group.

In the context of this knowledge base, we define a teacher educator as follows:

A teacher educator teaches within a teacher education programme, and instructs and supervises (future) teachers in their professional development.

In this definition, teacher education is an accredited programme for (future) teachers from bachelor level onwards. Teacher education is carried out within a formal cooperative body (training school) consisting of one or more schools and one or more HBO- or University-institutes. Preferably, teacher educators have followed a specific educational programme, and are registered with the Dutch Association of Teacher Educators VELON/Teacher Education Registration Board SRLo (Melief & Dengerink, 2010).

Perhaps, this diversity of the profession may well be the reason that it took until the beginning of the 1990s before teacher educators were acknowledged and recognized as a specific professional group, and the supervision of their professional preparation and their professional development as an autonomous profession.

Part and parcel of the development towards being a profession in its own right is that this demands specialized expertise, for which a specific professional preparation, e.g. through an educational pathway, is desirable. Another characteristic of professionalization is the creation of a platform for the exchange of professional expertise and further professional development in the context of a professional association. In the Netherlands, the VELON is such an association.

The recognition of teacher education as a profession in itself also resulted in the initiation of research into the activities and tasks characterizing the profession, and the posing of the question how teacher educators are to be prepared and initiated into the profession. In this contribution, we will briefly pay attention to two aspects forming the specificity of the profession of teacher educator: the identity of teacher educators and to their expertise (cf. Lunenberg, 2010).

The identity of teacher educators

Klaassen, Beijaard, and Kelchtermans (1999, p.137) describe professional identity as "rather enduring opinions, reflection patterns on the professional actions and the self image that comes with this." It is the way in which professionals explain and justify their actions in relation to others and in context (Coldron & Smith, 1999; Beijaard, Meijer & Verloop, 2004). According to Conway (2001), professional identity is not something static, but is embedded in a process of interpretation and re-interpretation. Nias (1996) emphasizes that the notion professional identity implies emotional commitment.

In one of the first studies into the identity of teacher educators, Ducharme (1993) uses the metaphor of the Janus face, the double-faced head, and adds that the teacher educator himself appears to have more than two faces: "*School person, scholar, researcher, methodologist, and visitor to a strange planet" (p.6).* In previous years, attempts have nevertheless been made to describe the key elements of the teacher educator´s identity.

Murray and Male (2005) interviewed 28 teachers who had become teacher educators. Based on these interviews, they concluded that key characteristics of a teacher educator´s identity are the development of a specific educational pedagogy in the context of higher education, the development of an academic attitude, and engaging in research. The interviewees described the development of an educational pedagogy as a voyage leading from providing ´tips and tricks´ to a switch of perspective: not the learning of pupils, but the learning of trainee students stimulating the learning of pupils became their focus. The development of an academic attitude and the conducting of research were seen as possibly still more complex, in which the planning of time was felt as an important stumbling block.

Together with Davison and John, Murray (2006) also conducted research into the manner in which students view their teacher educators. Many view the experiential knowledge regarding teaching as the core of their expertise and credibility as teacher educators. Some students value excellence in the research done by teacher educators. Others complain that the attention teacher educators pay to research is at the expense of themselves and their development.

Lunenberg and Hamilton (2008) conducted a self-study into their own development as teacher educators. They emphasize that, more than in other professions, one´s personal history appears to influence the identity development of the teacher educator, also because there is no clear-cut pathway to the profession.

They see the development of an educational pedagogy, and specifically *modeling* and the stimulation of reflection in future teachers, as one of the key characteristics of the teacher educator. A second key element in the identity of teacher educators is that they are knowledge consumers as well as producers.

An interesting study is that done by Swennen, Jones, and Volman (2010), who have analyzed 25 articles on the development of teacher educators in various countries. On this basis, they distinguish four sub-identities of the teacher educator: that of the former teacher, of the teacher in higher education, of the teacher of teachers, and a sub-identity of the researcher. Swennen, Jones and Volman stress that the sub-identity teacher of teachers is specific to the teacher educator. They see the *modeling* of teaching and in particular the accompanying values, as a key characteristic, because their analysis shows that the major part of research by teacher educators concerns their own practices.

In all, we can argue that the implementation of a teaching pedagogy and conducting research appear to be the core of the teacher educator´s identity. It needs to be said, though, that in the Netherlands conducting research is (as yet) not a natural part of the teacher educator´s tasks, and that this key element is therefore less prominent in the identity of the Dutch teacher educator. However, there are no research data on this.

The expertise of teacher educators

Research into the profession and desired expertise required of a teacher educator is still limited, but the knowledge we do have has grown considerably during the previous two decades, particularly through *self-study research* (teacher educators examining their own practices). The publication of the *International Handbook of Self-Study of Teaching and Teacher Education Practices* (Loughran, Hamilton, LaBoskey, & Russell, 2004), and, since 2005, the publication of the magazine *Studying Teacher Education,* give a good picture of the growing knowledge we have of the profession, and the required expertise.

In addition, numerous other articles and books have been published. Early publications from the nineties such as those of Ducharme (1993), the Arizona group (1995), Hamilton, Pinnegar, and Guilfoyle (1997), and Kremer-Hayon and Zuzovsky (1995) already call attention to the fact that a good teacher is not automatically a good teacher educator:

“My previous experience as cooperating teacher was not sufficient. As a teacher educator I was expected to help students place their experiences in theoretical frameworks, make linkages between theory and practice, fill in gaps in pedagogical knowledge, create sequences, and suggest meanings on sound rationales. How to do this was beyond my knowledge“ (Kremer-Hayon & Zuzovsky, p. 160).

To clarify the distinction between the work of teachers and teacher educators, Murray introduced the terms first- and second-order teaching (cf. Murray & Male, 2005). With first-order teachers, we speak of teachers working with pupils. With second-order teaching, we speak of teacher educators working with student teachers who in turn will be working with pupils. So, what we have here is a stratification. From the research of Murray & Male, it becomes apparent that working with adult learners, knowledge of learning styles of student teachers, being able to structure adult learning, and the ability to recognize the potential of students can be considered as characteristic for second-order teaching.

It is interesting that in their research, the commitment of teacher educators ("to be there for them") is also mentioned as being important. Farr Darling notes that here teacher educators sometimes exaggerate and that it is very important to keep in mind the balance between attention to learning and attention to caring. Bullough (2005) warns that for teacher educators this may be a particularly great pitfall: if they do not receive adequate education and support in helping their students´ learning, they may become inclined to focus on care.

Teacher educator expertise is also necessary in linking theory and practice. In 1999, the article *"Linking theory and practice: Changing the pedagogy of teacher education"* by Korthagen and Kessels was first published. They concluded that the "theory-into-practice" model, as commonly used by teacher education institutes, did not work or hardly so.

Students did not absorb or internalize the theory, possibly also because it did not match their preconceptions. In addition, the model insufficiently took into account the complexity of teaching: a practical problem cannot be solved by simply applying the relevant theory. On the basis of the results of these studies, Korthagen and Kessels pleaded for more attention of teacher educators to the experiences of the student-teachers themselves, to their *concerns* and opinions, and to the connection between practice and theory.

In the past ten years, competency-based teaching has entered the scene, and onsite training-in-the-school has grown big. But this greater role of the school practice has not led to a bridging of the distance between practice and theory. What we see today is a dominance of practice and a problematical role of theory. For this reason also, Lunenberg and Korthagen plead for the attention of teacher educators to the development of practical wisdom (situation- sensitivity) and for the support of trainee students in the *contextual and balanced* acquisition of practical wisdom, theory, and experience (Lunenberg & Korthagen, 2009).

With the attention for the autonomous profession of teacher educator, attention also grew for educational pedagogical methods. Among Dutch teacher educators also, "Teach as you preach" and "Walk your talk" have since then become standard expressions. Loughran and Berry (2005) among others have contributed to its development, by showing it is more than just an example. It is also a matter of explicating the pedagogical choices and underpin them with a theoretical basis. The growing number of publications about pedagogy of teacher education provides handles to bring them into practice (for further information, see the field of Educational pedagogy).

Finally, we point to the fact that teacher educators (as do school trainers) work in the context of higher education programmes. Their work therefore has to conform to the requirements imposed by higher education (cf. the criteria of the Dutch-Flemish Accreditation Organization NVAO - and the Dublin descriptors). This means that Dutch teacher educators, too, have (to do more) to combine education and research with each other (for this, read the domain Research).

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Profession: teacher educators

What types of teacher educators can be distinguished?

Jeannette Geldens and Theo Bergen

Teacher education In the Dutch environment can be characterized more and more as a ´school-centered teacher education´, because it is viewed as a joint responsibility of teacher educators in colleges of higher education (HBO), in universities, and in (teacher training) schools (Bergen et al., 2009).

Within these educational programmes, a distinction can be made between the programmes for primary and secondary education teachers. For primary education teachers, the route is a four-year (HBO-) bachelor teacher education/training programme, the so-called PABO (primary-school teacher-training college). For secondary education, there are bachelor and master teacher education programmes, provided by colleges of higher education as well as by universities. Bachelor programmes lead to a grade-two (primary and lower secondary) school subject certification, and master programmes to a grade-one (upper-secondary) school subject certification.

Among teacher educators for primary as well as secondary education, a distinction can be made between educators working in an educational institution, and those working in (teacher training) schools. Teachers interested in the pedagogy of their specific subject and with a few years of teaching experience behind them, can apply for the occupation of teacher educator at a college of higher education or university teacher education institute. School based trainers enter teacher training, because they have the experience and are seen by their colleagues as good teachers.

Murray & Male (2005) pose the question whether good teachers also make good teacher educators. They distinguish between first-order teaching (teaching pupils) and second-order teaching (teaching trainee students how to teach). The stratification of the knowledge base of teacher educators can be portrayed as ´knowledge and learning to the third degree´. The activities of teacher educators are after all an accumulation of levels of knowledge: knowledge about pupil learning (first degree), knowledge about trainee teacher learning (second degree), and knowledge about the knowledge of the teacher educator himself (third degree).

Teacher educators, as Swennen, Volman & van Essen (2008) conclude, need a broader knowledge base and additional skills different from those acquired as teachers of pupils. We conclude that there is no formal educational programme for teacher educators, not for institutional teacher educators nor for school-based trainers. Apparently, teacher education is not seen as an autonomous discipline, so teacher educators will have to define their own professional identity (Martin & Russell, 2009; Berry, 2009).

Lunenberg & Dengerink (2010) report from discussions held with stakeholders and experts about the teacher educator knowledge base. One of their recommendations is to pay attention to the diverse knowledge of teacher educators, such as their subject knowledge and educational pedagogical knowledge. The question arises what the knowledge base of teacher educators is and what the differences in the knowledge base are between the various categories of teacher educators.

The association of Dutch teacher educators (VELON) has developed a professional standard for teacher educators. This professional standard gives a description of the competencies of teacher educators. The standard is based on seven competences, which in turn are closely related to the so-

called SBL-competences (SBL, the Association for the Professional Qualities of Teachers) (cf. www.lerarenweb.nl). The professional standard aims at giving a typical description of an averagely experienced teacher educator. The professional standard distinguishes between institutional educators and school trainers.

The professional standard has a threefold aim. First, the standard defines the quality level of how the professional tasks are executed, thus better enabling the professional group to be held accountable and to enter both within the professional group and externally into discussions about the quality of their professional activities. Second, the professional standard contributes to the professional development of teacher educators. Third, the professional standard stimulates the reflection about the further professionalization of the profession. Based on this professional standard, the Velon has developed a registration procedure, and a database of registered teacher educators is being maintained by the SRLo (Foundation for the Registration of Teacher Educators).

Looking into the professional standard of the VELON (cf. www.velon.nl/english), what strikes us is that the ´subject knowledge´ required of teacher educators is not described. Shulman (1986) proposed three categories of what he called ´teacher subject matter knowledge´ (SMK). The first is the ´content knowledge, which refers to the amount and how the knowledge is organized in the teacher´s brain. The second is the ´pedagogical content knowledge´, which on the one hand consists of the ways in which the subject matter content is being presented in order to enable others to learn, and on the other hand those aspects that make it difficult or indeed easy for pupils to learn.

The third is ´curriculum knowledge´, which refers to how content of the students´ curriculum has been organized. The links between these three kinds of knowledge that teacher educators have to provide students with in order for them to learn how to teach has not yet been fully mapped, and can also vary greatly between subject matter contents. Brophy (1991) argued that to the extent that subject matter knowledge of teachers is more explicit, better interlinked, and more integrated, the better are the chances they will teach in a more dynamic, more varied, and more challenging manner. If this is true for teachers, then it applies even more to teacher educators, because of the fact that their activities can be characterized as second-order teaching.

For the professional standard of teacher educators, this means that the ´subject matter content´ would have to be specified per subject or subject domain. More attention to the ´subject matter content´ for teacher educators means that the professional standard consists of a subject specific competence domain and the more general competence domains such as the interpersonal/educational, the educational pedagogical, the organizational domain, etc.

Back to the question ´what types of educators are there? ´

The question can thus be answered from various perspectives.

A first perspective is that the work environment of teacher educators is considered. The VELON professional standard uses this aspect and arrives at the classification of institute-based and school-based educators and trainers.

A second perspective considers the kind of target group the teacher educator works for. Then, distinguishing between primary education teacher trainers and secondary education teacher educators is obvious.

A third perspective considers for what kind of subject matter content and subject domains training is being organized, and what the subject matter content knowledge is of primary education teacher trainers and secondary education teacher educators, taking into account the second- and first-degree domain.

We think it is a good first step to start from these three perspectives and describe the teacher education profession in terms of professional standards, thus stimulating teacher educators to enter into a dialogue with each other covering the full breadth of the teacher education profession.

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How do you become a teacher educator?

Douwe Beijaard

This contribution focuses on the professional development towards becoming a teacher educator, and the development of a professional identity as such in particular. However, if you do not exactly know what the occupation of teacher educator involves, the question how one develops this identity is not easily answered. With this, the present contribution deals first. The concept ´professional identity is the focus through which the profession of teacher educator is being looked at in this contribution. Next, the development of that professionalism will be dealt with, and some tools will be offered which can be helpful in this.

Professional identity of teacher educators

From an identity perspective, research into teachers has already been conducted for some time now (cf. Beijaard, Meijer, & Verloop, 2004) and – more recently – also into teacher educators (e.g. Lunenberg & Hamilton, 2008; Swennen, Jones, & Volman, 2010). In the literature on identity generally, ´identity´ is defined as ´to be who you are´ (Burke & Stets, 2009). This is a reflection of the meanings one attributes to oneself, for example as a teacher educator. In fact, one possesses more identities (for example as a colleague and a parent) or sub-identities (for example, the teacher as a subject expert and as a coach). Within the teacher education profession also, there are various (sub)identities. To bring some kind of order to this, three ´basic identities´ can be distinguished (Burke & Stets, 2009):

1. *Identity as a person*. Here one´s uniqueness and authenticity are being expressed: the person you are independent of situations, points in time, and relationships. What counts here are important qualities or characteristics of the individual.
2. *Role identity*. What counts here are the things one expects from a person, and which steer someone´s position or activities. What matters in role identity is the internalization of notions which are part and parcel of an externally defined role. A role distinguishes itself by a certain general validity, but also a certain degree of idiosyncrasy (individual accents, qualities and the like, in other words what one does not have in common in the same way with others, and about which in certain situations one has to negotiate). In the execution of a role, one can be more or less competent.
3. *Social identity*. Essential is the identification with a group (people having something in common). What matters is a question of uniformity resulting in a feeling of connectedness and self-respect. In practice, role and social identity overlap.

Of course, these three basic identities are closely interdependent and influence each other. The coloring of roles and how someone positions himself/herself in a group are strongly determined by one´s identity as a person. And of course, this identity is in turn influenced again by role and social identity. The concept ´professional identity´ is used to refer to the integration between the three basic identities (and sub-identities for role and social identity).

Professional identity can thus be viewed as a product. At the same time, it is also a process (cf. Olsen, 2008) as a result of all kinds of changes or influences, external (e.g. having to teach other groups of students than one is used to) or internal (e.g. because of being oneself dissatisfied with how something evolved during the lesson). Based on the distinction made, table 1 presents an overview of the main aspects of the teacher educator´s professional identity.

Personal identity	*Role identity*	*Social identity*
- personal qualities - norms/values - opinions/convictions - interests/needs	- expert in a certain field - role model to students - coach/mentor - colleague - researcher*	- teachers - teacher educators - researchers*

*Many teacher educators also have a research task

Table 1. Professional identity of the teacher educator

Development of the professional identity of teacher educators

In the learning of the profession of teacher educator, learning is a function of who you are as a teacher educator and the kind of teacher educator you want to become. Each sub-identity has its own identity standard (Burke & Stets, 2009). All kinds of practices, occurrences and persons exert an influence on sub-identity standards.

A mismatch can occur between an identity standard and your perception of an occurrence in a particular situation, for example when you as coach have to cope with a student who does not like you, while you yourself are convinced of the correctness of the way in which you approach that student. You are at your wits´ end and perceive this situation as an infringement of the identity standard that comes with your role as coach.

Generally though, professionals perceive situations in such a way they do not infringe on the relevant identity standard. It mainly happens subconsciously and routinely. In the case of a mismatch between identity standard and the perception of the situation, there are two possibilities: denying and holding on to your identity standard, or changing the standard.

Changing identity standards, certainly with experienced professionals, often implies a lengthy process and seldom happens by fits and starts. The impact of a mismatch on the perception of one´s own professional identity depends on how the relevant identity standard is related to other standards, and what position that standard occupies in the hierarchy of identity standards.

This is different with beginning professionals still having to (further) develop their identity standards. A teacher educator learns the profession by (cf. Hoekstra, 2007; Kwakman, 1999):

1. *Socialization into the culture of the profession,* where it is a matter of learning by doing, speaking with and observing of colleagues, choosing ´*best practices* 'as a model for your own functioning and affirmation or denial of one´s own thinking and acting on the part of others. Socialization is a matter of informal learning and much *trial-and-error* learning.

2. *Schooling,* for example through specific coaching of a colleague, attending a course, and participating in intervision sessions. Schooling is mostly a matter of formal learning with the objective of ´fast´ developing adequate identities. There is less room for *´trial-and-error´* learning.

3. *Reflection,* for example on certain occurrences and opinions voiced by others about you (feedback) or on information relevant to you which can be of a diverse nature. Through reflection one gives meaning to one´s experiences, which leads to structure, supplementation, elaboration, etc. of an identity standard. Reflection can be formal as well as informal learning.

Learning a profession can be accompanied by a lot of emotion. When students for example indicate that your lessons make no sense to them, while you think them to be very important to them, then this is emotionally considerably invasive.

Tools for the development of a professional identity

Elsewhere, the present author has mentioned three aspects relevant to the development of the professional identity of teachers (Beijaard, 2009). Taken together, these are:

1. *Giving meaning to experiences.* This means checking if what one has learnt matches with who one wants to be as a teacher educator and what kind of teacher educator one wants to become. This is a process of self-conceptualization. During this process, it is good to enter into discussions with others (colleagues, peers) about one´s learning experiences, for example to look for affirmation or to check the use of what one has learnt. In processes of self-conceptualization, the educator links his/her professional learning experiences to personal opinions, motives, emotions, etc. Making one´s self-concept regularly public by submitting them to *´peer review´*, evaluation and communication with others is important. It makes you as an educator better able to determine what the ´good´ of it consists of.

2. *Showing ´agency´*. Mere learning through external impulses seldom leads to changes in thinking, knowledge, skills, and approaches. What is important is that what you want to learn originates from your needs or interests. Showing *´agency´* in this case means that you as a teacher educator plan your own learning path. To this end, you take the initiatives, negotiate about your learning wishes, carry responsibility for your own learning process, manage it yourself, and exercise control over it.

3. *Self-evaluation.* This concept distinguishes itself from the reflection concept in that it follows an explicit procedure to which objective criteria and standards have been attached on the basis of which you give a ´verifiable´ judgment on yourself. Self-evaluation is an activity appropriate to professionals carrying responsibility for their own learning processes. In self-evaluation, peers can have an important added value, for example by observing and giving feedback to a colleague on the basis of criteria and standards. This feedback can very much enrich and sharpen the individual judgment, which in turn leads to further learning. The professional standard as developed in the context of the VELON, and the procedure linked to it to get qualified as a teacher educator, are excellent instruments that teacher educators can introduce into their self-evaluation.

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Profession: teacher educators

How do you keep developing as a teacher educator?

Quinta Kools and Bob Koster

Introduction

In a running text, we have tried to give an answer to the leading question “How do you keep developing as a teacher educator?”

The text touches on three topics: 1) why should you keep developing; 2) how can you keep developing; and 3) in what can you develop? These topics are briefly elaborated. Though the elaboration does not provide the reader with step-by-step plans, but it does provide starting points and ideas for their own interpretation of the “how”. Each topic will be accompanied by a few articles interesting to those who want to delve deeper into the matter.

1. Why

Teacher educators are faced with the important task of ´teaching the teachers of the future´, for the whole range of primary and secondary education. That requires quite something from the teacher educators and from the educational programme they devise: follow and preferably stay ahead of the developments that can become part of the education of the future. How can teacher educators rise to this demand?

By constantly continuing to develop themselves! Next to the already mentioned reasons for continuing to develop oneself as teacher educator (you owe it to yourself and the profession), Kari Smith names another three reasons for teacher educators to keep developing themselves:

1) to improve the profession of ´teacher educator´;
2) to hold on to one´s own interest in one´s profession/work and
3) to be able to switch task/occupation within the profession.

2. How

Whatever reasons you may have to develop yourself as a teacher educator, the next question is *“How do you keep developing?”*

From a recent exploratory study (Kools, White and Van der Klink, 2010), it appears that experienced teacher educators name different activities from which they learn, such as taking part in congresses, reading books or articles, participating themselves in a study programme (Master or PhD), talking with colleagues, ´team teaching´, mentoring students, and visiting (training)schools.

Here, we recognize mainly the categorization that has taken place in the NWO (the Dutch organization for scientific research) field of interest (Bakkenes, Hoekstra, Zwart, Meijerink; cf. Vermunt, 2006, p.20) regarding the different ways in which professionals learn/keep developing, namely:

1. By doing (without the intention of learning)
2. By experimenting (with the intention of learning)

3. By reflecting on experiences
4. By learning from the thoughts and behavior of others (reading of a book, attending a course, copying experts, etc.)

To all of these applies: 5. It can be done alone or together with others (Bakkenes et al, 2010). In addition, everyone has an individual learning preference, and some things can be done simply by oneself, while other things require somewhat more organization (with others).

Learning by doing

Murray´s research (2008) into the induction of beginning teacher educators in the UK shows that ´learning occurs, both collaboratively and individually, through participation in a wide variety of tasks and settings´(p.128). In order to stimulate the learning of educators when ´doing´, a systematic approach, working in teams, for instance by doing teamteaching, and access to mentor support are all helpful. The study also observes that a number of work settings have to be typified rather as ´restrictive learning environments´, which has to do mainly with workload, executing a limited number of tasks, and little time for reflection on the work done.

Learning by experimenting

From research (Koster et al, 2008) into the portfolios of participants of the Velon registration procedure, it appears that learning mainly occurs by experimenting in one´s own work environment, together with others. In so doing, the participants especially acquire knowledge and skills that can be used in their own practices as teacher educator. Experimenting mainly concerns matters such as contributing to curriculum development, developing an innovative workshop, using new materials, or looking for new ways in which students are stimulated to broaden their horizons. These experimental activities lead to e.g. another or broader view of being an educator, or the implementation of a broader range of pedagogical behaviors.

Learning from experiences by reflection and self-study

A way of learning (unwittingly) applied by many is learning by (structured) reflection on one´s own actions or activities. Hamilton et al (2009) call this ´self-study´ and with this, they point to the active posing of questions about the individual way of working/teaching and trying to answer these questions by experimentation. The reflections/findings are recorded, though it is not the intention (as in action research) to share outcomes with others through a report or presentation. See examples of Maria Inês and Mary Lynn in Hamilton a.o., p. 208-209.

Maintaining a portfolio helps in reflecting on the professional status of the moment. The portfolio lends itself both to looking back: ´what have I achieved, where am I? ´, as to making plans for the (foreseeable) future: 'what/which aspects do I want to further develop? ´. A portfolio thus serves as a monitor of professional development (Smith & Tillema, 2001).

Learning from others (sources, course, experts)

Learning from others through a course/an education, sources, or experts is a way of gaining specific knowledge or of refreshing knowledge. Examples of this way of learning are participation in an educational (Masters) programme, post- or inservice programmes on specific (subject)topics, attending study days or congresses (e.g. for subject-specific teacher educators, VELON), or the reading of (subject-specific) literature. To many, certificates of attended training days are a "collector´s item" to be included in the portfolio. However, a warning applies here: "*certified courses, inspirational speeches and isolated workshops are normally much less effective than professional*

learning that is at some point built into teachers' everyday working responsibilities" (Hargreaves, 1997, p 117). The reading or taking note of the knowledge of others is not yet the same as implementing this knowledge. This needs the combination with ´learning by doing´ or ´learning by experimentation´.

Learning with others

An example of the collaboration between three teacher educators can be found with Schunck et al (2008), in which mutual observation, joint reflection, professional development discussions, etc. lead to professional development. They conduct a ´self-study´ into their mutual cooperation and arrive at the conclusion that 'the learning conversations forced us to re-examine the tacit knowledge, and questions the ways we have been doing things'. They not only look into the results, but also into the process of learning with others: "Critical friendship is not unproblematic. Issues of trust, power, status, shared (or separate) understandings can all rise" (p. 218).

3. What

Once the *How* is solved, the question remains "*What do I want to develop further?".* As a roadmap to professionalization, the ´T-profile´ described by Matthieu Weggeman in his book ´*Leidinggeven aan professionals? Niet doen!´(*2007) (´Managing professionals? Don´t do it!´) can be helpful . The thought behind this is you cannot possibly stay abreast of all fields (subject contents, pedagogy, ICT). So you must make choices, in which the shape of the capital T represents the kind of choice.

- You can choose (in-depth) specialization in a sub-domain (vertical leg of the T) and to keep informed on 2-3 neighboring fields (upper horizontal leg of the T). The specialization should be thus that you can genuinely keep abreast of its ´state-of-the-art´. By keeping informed on the neighboring fields, you can keep talking shop with your colleagues.
- You can also choose for a generalist body of knowledge (thick upper leg of the T) and a limited specialization (short vertical leg of the T). You then know something of a variety of fields and a little more of that one field.
- Thinking through from this concept, all kinds of T-shapes are possible.

Harmonization with colleagues is desirable, so that the T-profiles of a team or in a training/education programme/institute match and complement each other.

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Pedagogy of teacher education

What pedagogical approaches are there in teacher education?

Fred Korthagen and Jaap Buitink

"Teaching teachers is a bit like trying to repair a speeding automobile in the midst of a bitter argument about how it should be done." (Fuller & Bown, 1975, p. 49)

Educating teachers requires a very specific set of pedagogical principles, because it concerns teaching about teaching. This is the field of the *pedagogy of teacher education* (Loughran, 2006), which is different from regular educational theory (useful in all sectors of education). Within the pedagogy of teacher education, the focus is on (a) pedagogical approaches/visions guiding the program structure, and (b) concrete educational principles that guide the interventions/actions of the teacher educator. In this knowledge base, we discuss both aspects separately. In the present contribution, we deal with the pedagogical approaches.

What pedagogical approaches are there?

In the course of the years, there have been a great number of different visions on how best to educate teachers. About these visions there has always been much debate. Already in the seventies of the previous century, Joyce (1975) described the important distinction between a vision specifically emphasizing that teachers acquire the right competencies (*competency-based teacher education,* short CBTE), and a more person-focused vision (*humanistic-based teacher education,* HBTE).

In the nineties, Zeichner and Liston (1990) distinguished four approaches they call ´*traditions*´, because they are rooted in traditions that can be observed throughout the entire twentieth century:

1. *Academic tradition.* In this approach, the emphasis is on providing scientific knowledge, knowledge from the subject disciplines as well as theories on learning and teaching. In other words, the strength of this approach is its grounding in science. The criticism is that a gap can result between theory and its practical implementation.

2. *Social efficiency tradition.* This follows naturally from the previous tradition, but puts more emphasis on what research tells us about the relationship between teachers´ actions and their pupils´ learning results. So, CBTE is a good example of this approach. In CBTE, concrete, observable criteria of ´good teaching´ are defined and teachers are systematically trained in them. The strength of this approach is that it focuses on the actual effective functioning of teachers in their everyday teaching practice. The main criticism of this approach is that it leads to endless and thus not easily usable lists of competencies, which eventually do not ´capture´ the essence of good teaching. In addition, it appears not to work in practice to train novice teachers in what an experienced teacher does. Learning to teach evolves differently through practicing (sub-) competencies. The classroom context is often too complex for this.

3. *Developmentalist tradition.* In this approach, it is attempted to base teaching on what is known of the development of children. Their cognitive, socio-emotional, moral, and language development, in particular. Its strength is the adjustment of teaching to the developing child.

Its criticism is that it creates a uniform sameness, while each teacher, pupil, and school is different. This is then counterbalanced by so-called *adaptive teaching*, which implies that teachers have to learn to adapt themselves to differences between pupils.

4. *Social reconstructionist tradition.* Here the emphasis is on using teaching to change the existing and often undesirable social stratification, and the attempt to rear children into becoming responsible and articulate citizens able to critically reflect on social, economic, and political themes, such as for example, differences between men and women, between social classes, and between people from various ethnic backgrounds. The strength of this approach is in its strengthening of democracy and ´empowerment´, and in opposing discrimination. The criticism of this approach is that it is asking too much of novice teachers to also breach the existing habits of society, and thus also in schools, and that in practice this hardly ever succeeds.

In practice, we see that in most programs of teacher education a combination of these four educational pedagogical traditions can be found.

Recent developments

Since the 80´s and especially after 1990, the emphasis in almost all teacher education programs has shifted to reflection (learning to reflect) on the part of teachers (Schön, 1987; Korthagen a.o., 2002). The essence of this is that teachers learn to learn from their concrete teaching experiences in order to enable them to manage their own professional development reasonably autonomously. In this vision, the emphasis rests on deepening their practice experiences through reflection, which matches a constructionist vision of learning. In this, the accent can still be on several of the focal points mentioned before, for example on the connection to theory, on the degree to which one´s own actions were effective, on the teacher as a person, on the degree to which the teacher contributes to maintaining or breaching existing patterns in the school, etcetera.

Because the very emphasis can differ so much, it does not really mean so much when an educational program puts reflection first. The elaboration of the notion reflection can differ hugely per program. That is why so much confusion has spread about what reflection or learning to reflect really consists of. That is why the criticism of this approach is that it is rather vague as to what it encompasses and that – apart from a few exceptions – little is known about the effectiveness of programs based on reflection (Korthagen a.o., 2001). Anyway, it is important that a teaching team can shed light on this, so that the teachers that have to be educated come to comprehend questions such as *how* and *about what* they should have to reflect.

A logical sequel to the reflection approach is the emphasis which during the recent decades has come to bear on the importance of *research by teachers* (Lunenberg, Ponte & Van de Ven, 2006; Ponte, 2002). *Teacher research* is in fact systematic reflection on one´s teaching practice, which means that a clear and unambiguous research question is formulated, data are systematically collected, and that the conclusions of the research are reached in a reliable and transparent manner. Within this approach as well, we see many variants with their own pro- and opponents.

In recent years, ´competency-based education/training´ has become very popular, a.o. out of the hope that this can lead to an enhancement of the practice relevancy of teacher education, to an improvement in determining teacher ability, and to a better match with the job market (Tillema, 2004). On the one hand, this appears to be a return to the times of the CBTE, the drawbacks of which

have been mentioned before. In addition, the concept ´competency´ is vague (at times, it just seems to mean ´behavior´ and ´skills´), and we know from research that competencies can hardly be determined in a valid and reliable manner (Burrough, 2001; Haney, Madaus & Kreitzer, 1987).

Attempts to achieve that validity and reliability, though, lead to complicated, bureaucratic, and time-consuming systems (Tillema, 2004), which require a lot of time at the expense of the available mentoring time. Korthagen (2004) argues that competency lists lead to a simplification and to one-dimensional thinking about what is a good teacher. He argues for linking competency-based thinking to attention to the teacher´s persona. Tillema (2004) warns against the too hasty rejection of competency-based education, because educators cannot skirt the question of the output of the teaching program in terms of the professionalism of teachers. He argues that the competency approach can be improved, a.o. by more clearly describing a number of aspects, such as the concept competency itself, the roles of the different actors, and the relationship between assessing and mentoring.

In addition, there is the (international) development towards providing *custom educational programs* (Tigchelaar, Brouwer & Vermunt, 2010). These focus on competencies teachers already possess when entering the program (Dutch: EVCs = Recognition of Acquired Competencies), and which they have acquired elsewhere (for example in another profession). In most cases, they develop the still absent specific teaching competencies in an abbreviated and customized educational program.

Surveying all of these approaches, the difference between approaches starting from a predetermined framework (e.g. academic theory or competency lists) and those starting from practice experiences (*practice-oriented, school-based)* stands out. The first appear to be hardly effective. Research into the so-called *practice-shock* has made it clear that a teaching program predominantly based on theory makes teachers feel ill-prepared for the actual teaching practice, and that the program theory is also hardly used by the teachers after certification (Hinsch, 1979; Wideen, Mayer-Smith & Moon, 1998).

As a result, but also under the influence of teacher shortages in many countries, there is a strong tendency towards *school-based teacher education*, in combination with the aim of maintaining firm connections between educational institutes and their satellite schools (*professional development schools).* In the Netherlands, this has led to the important development towards so-called ´In-school education´ (´Opleiden in de school´), which shows all kinds of variants (Bergen e.a., 2009; Buitink & Wouda, 2001; see also the lemma: the ´relationship between schools and institutes´ in the domain Organization). Essential to in-school education is *learning at the workplace* (Bergen & Vermunt, 2008; Buitink, 2008; Kelchtermans e.a., 2010; Smith, 2003), where it is not just a matter of intentional learning processes. Learning in the workplace often takes place unconsciously and implicitly (Hoekstra, 2007). So, also within in-school education, reflection is an important tool in making professional knowledge explicit.

One danger of a more practice-oriented education is that it is theory which once again comes off badly (Stones, 1992). The central sticking point is not so much organizational as pedagogical in nature: how can practice and theory become genuinely connected? An educational model in which this seems to succeed well is the *realistic education* model developed at Utrecht University, and noticeably positive results of which have been proven. It builds on the reflection approach and is a.o. based on matching practicable theory with the actual experiences and ´concerns´ of the students. The model is being used in various countries. (For a detailed description and research results, see Korthagen a.o., 2001). However, it has to be emphasized that student teachers differ in the ways they learn, and that the education program should take these differences into account (Oosterheert & Vermunt, 2002). So, an educational program that ´ best fits´ all does not exist.

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What educational principles can be distinguished?

Fred Korthagen and Jaap Buitink

There are various principles that can function as guidelines in the education of teachers. Based among others on an international comparative study (Korthagen, Loughran & Russell, 2006), we will list the most important and briefly explain each.

A survey of the most important educational principles

Learning at the institute and the integration in practice / alternation of theory and practice / school-based teacher education.

These are three closely related principles, the essence of which is to link theory and practice. By using practical experiences in a focused and systematic manner for the benefit of professional learning, the teacher education program can gain practical relevancy. In so doing, it is important to present theory at the appropriate moments and match the needs of the students (Buitink, 2001). In most cases, this requires an alternation between practical experiences and in-depth reflections, professional discussions, and a menu of practice-focused theory (Korthagen 1998; Korthagen et al., 2001; Kinkhorst, 2010).

Matching experiences and concerns

With this principle, the idea is that by closely matching the students´ developmental stage, the professional learning becomes more effective. The experiences of the individual student and his/her *´concerns´ ("perceived problems or worries"*; Fuller 1969) will then form the basis for further deepening. When the trainer´s support focuses on helping the student progress with his/her concerns (for example by presenting appropriate theory and practice-focused support), this will in most cases deepen the student´s learning (Lunenberg & Korthagen, 2009).

Fuller and Brown (1975) described the concern development of teachers as often evolving in stages:

1. *Pre-teaching concerns:* students who have never yet taught identify themselves with pupils, and only in their imaginations with being a teacher.
2. *Concerns about surviving.* The central question here is: how will I survive as a teacher in the classroom?
3. *Teaching situation concerns.* These are concerns about methods and materials. The student is looking for ways of effectively explaining teaching content and is much more focused on teaching than on the pupils´ learning.
4. *Concerns about pupils* and their learning. The student gradually becomes more aware of the pupil.

Other authors have added an additional stage, namely middle-level concerns, i.e. concerns about the organization of the school as a whole (e.g. Fessler & Christensen, 1992). There is discussion about whether the students´ concern-development always runs in such a straight line.

Matching preconceptions

Decades ago, Lortie (1975) in his research already discovered that students, from the many years of experience as a pupil, take along images and conceptions about teaching. Wubbels (1992) calls these ´preconceptions´ and an important pedagogical principle to take into account, because otherwise a gap can emerge between the theory provided and the preconceptions, which are often difficult to change given that they are rooted in years of experience. In realistic teacher education, a pedagogy is used that starts from preconceptions and works its way toward theory (Lagerwerf & Korthagen 2003a, 2003b).

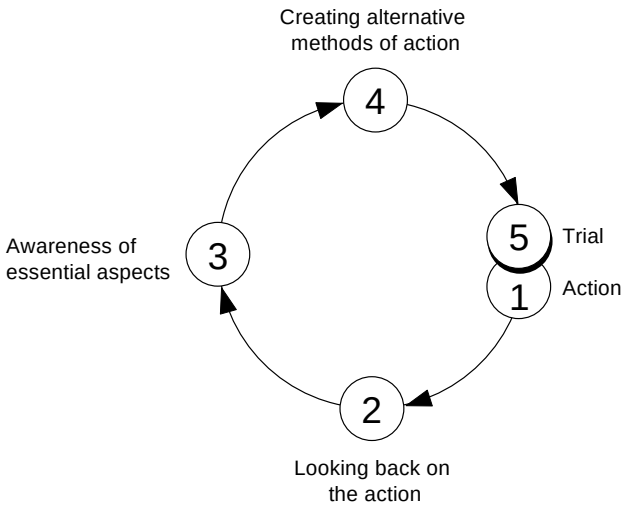
Practice theory

To be able to relate theory and practice to each other, it is important to present students not only with academic knowledge about learning and teaching (Korthagen, 1998, calls this “Theory with a capital T”), but also with theoretical concepts close to the student´s own concrete experiences that help the student to move towards acting effectively in practice. One speaks of contextual practical knowledge (Meijer, Zanting & Verloop, 2002; Verloop, 2003), also called practice theory or “theory with a small t”. It combines theoretical knowledge, concepts and action-guiding principles. Experienced teachers possess much practical knowledge guiding their actions, but which is often implicit (Kwakman & Van den Berg, 2004), and developed in so-called informal learning. That is the kind of learning which does not take place consciously and intentionally (Hoekstra, 2007). It is important that in coaching novice teachers, the practical knowledge of more experienced teachers is made explicit (Zanting, 2001), and that students reflect on that practice knowledge (Buitink, 2001)

(Learning to) reflect

Everyone considers reflection by teachers on their teaching experiences to be important (Groen, 2006; Janssens, 2008; Loughran, 2006). Schön (1987) argues that reflection is mainly triggered by non-routine situations. He distinguishes between *reflection-on-action* (after the action) and *reflection-in-action* (during the action), which initially is difficult for novice teachers. Reflection previous to teaching situations is also important (Brouwer e.a., 2002, p. 44).

There is a danger that reflection remains superficial and is only *action-focused* (“what do I have to do (better)?”). It appears from research that *meaning-focused* reflection contributes much more to professional development (Hoekstra, 2007; Mansvelder-Longayroux, Beijaard & Verloop, 2007). In order to stimulate meaningful reflection, it helps to go through a couple of steps that are shown in the figure below (Korthagen et al, 2001).



Spiral model for reflection

It is particularly important to pay proper attention to phase 3 and its connection to theory, and not to jump to a solution. Korthagen et al. (2002) give concrete indications and questions to deepen the reflection, and to give thinking, feeling, wanting and acting balanced attention.

An important question for educators is how to teach students to reflect on their own. It is then that we speak of *learning to reflect.* An appropriate pedagogy is worked out in Korthagen (1998), and more extensively in Korthagen et al. (2001). Ideally, students also learn to support each other's reflection by means of intervision or collegially supported learning (Melief & Tigchelaar, 2001).

The spiral model for reflection is a process model that in itself does not yet say anything about the question *about what* the student is reflecting. That is why, in order to add another dimension to reflection, core reflection has been developed during the last ten years or so (Korthagen & Vasalos, 2002). In it, using a so-called onion model, six layers are distinguished as focal points for reflection: 1. Environment, 2. Behavior, 3. Competencies, 4. Beliefs, 5. (Professional) identity, and 6. Mission. The theory of core reflection posits that the functioning of teachers (e.g. their use of competencies) becomes more effective and more natural to the extent that these layers are more in harmony with each other.

Starting from strength and personal qualities

Core reflection also focuses on becoming aware of one´s own personal qualities, such as courage, determination, commitment, clarity, and etcetera. A new movement in psychology, *positive psychology,* argues that a focus on such qualities and on successful experiences is more effective than an emphasis on what is still imperfect and on deficiencies (Seligman & Csikszentmihalyi, 2000). Fredrickson (2002) developed the *broaden-and-build* model, which says that it is important to build onto the qualities and positive meanings that are present and expand on these. That requires relatively much positive feedback and a focus on successes and ideals (Korthagen & Lagerwerf, 2008).

Biographical perspective / reflection on professional identity

As the student reflects more profoundly on his/her own *identity development as a teacher*, one speaks of a *biographical perspective* (Brouwer e.a., 2002; Kelchtermans, 1994; Rodgers & Scott, 2008). In it, the individual biography previous to the educational program (for example one´s own school career) can be included. The reasoning behind this is that teachers, through life´s and professional experiences, develop a personal interpretational framework, called *subjective teaching theory* (Kelchtermans & Vandenberghe, 1995). Throughout its continuous development, so-called "critical situations" play an important role. These are certain events or experiences that have/had a particular influence on these dynamic and personal subjective theories and the self-image of the teacher.

Modeling / teach as you preach

What is special about the teacher educators´ profession is that they teach about teaching (Russell & Korthagen, 1995). Thus, they are expected to apply to their own teaching and training the theories they teach (*´teach as you preach´)*. This is called the *congruency principle* (Korthagen, 1998).

Russell (1997) argues that the example teachers set is of great importance: "How I teach IS the message". One speaks of *modeling* or *congruent teaching* (Swennen, Korthagen & Lunenberg, 2004). Examples of teachers who practice this intentionally can for example be found in Loughran and Russell (2002) and Wood and Geddis (1999). The learning effect on students of *modeling* is enhanced if the educator also makes the exemplary behavior explicit, which is to say that s/he names his/her own pedagogical acting as such and puts it up for discussion, discusses the effects of his/her own behavior in the here-and-now, etcetera. If the educator also legitimizes this behavior with the help of theory, then this adds something extra to the learning process. In their research, Swennen, Korthagen en Lunenberg (2004) found that these advanced forms of *modeling* are alas little applied by educators.

Educating educators at institute and school

It is an important meta-principle that the above principles are also important in the professional development of the educator himself/herself. S/he, too, should reflect regularly and should be supported using theory matching the individual educational experiences and the resulting concerns (Korthagen et al., 2001; Russell & Korthagen, 1995). It is remarkable that this is a relatively void area: a systematic education of educators in their profession is absent, not only in our language domain, but also internationally. At present, there is indeed a (Dutch Association for Teacher Educators VELON-) backed initiative in this direction. Also contributing to the professional development of educators are projects focusing on conducting research by educators into their own practices (Lunenberg, Zwart & Korthagen, 2009).

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What educational methodologies are available?

Bob Koster and Larike Bronkhorst

Theory

There are many educational/training methodologies available. Apart from other considerations, when deliberating about which to use, the effects to be expected play an important role. However, with educational methodologies, it cannot be unequivocally determined whether or not they are effective. First, because in the literature *there is no consensus on what effective means* (Cochran-Smith, 2001): is a methodology effective when it promotes the learning, actions or the competencies of the student? Or does an effective methodology also influence the learning of pupils? Also needed is a "*chain of evidence"* to determine whether or not the educational methodology really has had influence and has been effective (Cochran-Smith & Zeichner, 2005), and in what way. This chain of evidence is difficult to determine, because many factors play a role, such as for example existing convictions and skills of the student, the place of the methodology in the entire curriculum, but also the type of school where the student teaches. Effectiveness is thus not always a clear-cut principle when choosing an educational methodology.

Another perspective is to take the development of the educational methodology itself as a starting point and use that as a basis for the choice of certain methodologies. A well-grounded educational methodology meets the following criteria:

- The methodology has been realized systematically;
- The methodology is supported by an educational vision using relevant sources;
- The methodology has been made explicit by educators on the basis of their practical experience and practical experimentation.

Vermunt (2006 lists eight different pedagogical approaches enabling teachers to learn. Below, we will use these approaches in structuring our contribution. In part, we recognize here the "pedagogical approaches" distinguished by Grossman (2005), such as case methods, portfolio, and practice research. Accompanying each of these eight pedagogical approaches, we present one or two educational methodologies that meet the previous criteria. They consist of a number of examples from a well-grounded educational methodology developed for the Dutch environment.

1. Traditional pedagogy

Although traditional teacher education is often viewed as outdated, the (interactive) lecture is a methodology still being much used. It demonstrates the knowledge base of the teaching profession. In his valedictory speech, Westhoff (2009) argues that lectures should not start from the information supply of the teacher, but from the knowledge processing of the student. He uses the pinball machine metaphor to indicate that what students learn from a lecture is always a matter of various factors: thus, the teacher cannot predict what knowledge his students will remember. He can however influence it by putting together a lecture which is as rich as possible: by offering the knowledge that has to be learnt in different ways, repeatedly, and embedded in authentic contexts, so that the student can relate it to his existing opinions and thus absorb it.

2. Case-based pedagogy

Case-based education uses a simulated practice, on the one hand to expose and on the other to influence the thinking, the frame of reference, and the perceptions of trainee teachers and/or their comprehension of classroom situations (Grossman, 2005). The case itself can be presented in various ways: in a written form, audiovisually, or in a role-play by trainer or fellow student done in the teaching environment. The student, in turn, can take this further in different ways: again textually (often in assessment situations), in a dialogue with peers and/or a trainer, or by actually role-playing the response.

In the Netherlands, there are a number of examples of this educational pedagogy. For arithmetic-mathematics, the MILE-project (Dolk, a.o., 1996) is a treasure-trove of useful teaching materials, for example relating to reacting as a student to situations from the classroom practice. Then, there is the Colevi-project (Bakx & van den Berg, 2005), in which cooperative learning within teacher education is given substance with the help of videos. The Ruud de Moor centre of the (Dutch) Open University also produces useful materials, which teacher educators can use to give meaning to a case-based pedagogy

3. Concern-based pedagogy

In concern-based pedagogy, the focus is the learning need of the trainee teacher. There, the concerns of the student-teachers are then the starting-point for learning, but also for the teaching the teacher educator provides. Concerns can be (teaching) situations experienced as problematic as well as positive experiences that are reflected upon.

In this ´Learning from experiences´, concrete situations experienced by the student or teacher are the starting-point, constructing one´s individual knowledge by means of systematic reflection. This systematic reflection includes a detailed analysis of what happened, what the effect was on pupils, and what has made this experience turn into a concern for the student. These (learning) questions are the starting point for further deepening investigating among others what theory says on the subject, in order to subsequently formulate action alternatives fitting the student himself and the environment in which he teaches. The reflection model describes the individual methodology matching it (Korthagen e.a., 2002a), the VESIt-model describes the group methodology educators/teacher trainers can use for this (Korthagen e.a., 2002b).

'Model-guided learning from success' (Janssena.o., 2008) is another example. In this teacher training methodology, students are being asked to look back on *success* experiences. These are then used as input for reflection, in which the experience is analyzed with the help of a model and theories backing it up. On the basis of this, practical guidelines are formulated and explained. These practical rules can then be turned into intentions or objectives for future lessons. Because success experiences provide an insight into what a student wants and is capable of, matching the specific context, reflecting on these experiences stimulates positive self-valuation.

4. Competency-based pedagogy

According to many, teacher education aims at delivering students who are qualified to begin teaching, which means they possess a number of educational and pedagogical competencies

enabling them to plan and carry out the primary group or classroom process at the appropriate level. In addition, the novice teachers should possess competencies in the area of, for example, collaboration with colleagues, participation in school development, and managing their own further growth. In competency-based pedagogy, self-regulation or self-guidance is an important component.

Training methodologies stimulating (trainee) teachers to work on acquiring their competencies are the ´portfolio´ and the ´personal growth plan´. In two award-winning articles published in the VELON quarterly (Dutch Association for Teacher Educators VELON), this methodology is worked out in detail and the background is outlined (Elshout-Mohr, 2003; van Tartwijk e.a., 2005).

5. Learning communities

In learning communities, students can process and deepen their experiences. A suitable methodology is Collegially Supported Learning (worked out in Korthagen a.o., 2002a), in which students systematically discuss and deepen their experiences in small groups in an equal and autonomous manner, and arrive at new approaches to their practice situations.

For learner communities in which (trainee) teachers work on subject topics having to with school- and educational development, methodologies have also been developed. Handles and focal points for setting up these kind of professional learner communities are provided by Verbiest a.o. (2005).

6. Mastery

Under pressure from inspection visits to the various teacher education programs, especially those for primary education, and the discussion about the ´quality level´ of the teacher, the theoretical deepening offered by the training and the resulting ability of teachers to substantiate their classroom actions, receive ever more attention. The emphasis comes to rest more and more on stimulating (trainee) teachers to develop their own practical theory by means of practice research. At a number of institutions, this practice research is better known as ´Mastery work´.

Recently, rather much has been published on the question how students can give substance to this mastery or on how research can be embedded in the curriculum of the teacher education program. This is much less the case regarding the question how a teacher trainer can shape this methodologically. An exception is the publication by Cornelissen a.o. (2008), in which the characteristics of (action) research mentoring are being mapped.

7. Informal learning

Ever more research shows that in their practice teachers mainly learn informally. This informal learning is differently defined. Eraut (2004) distinguishes three definitions of informal learning used randomly in the literature: purposeful, reactive, and implicit learning.

Purposeful informal learning is planned learning, but in the workplace (and thus not formal). Reactive informal learning is learning in the workplace in response to what occurs there, and thus not planned and not formal. Implicit informal learning is unplanned learning in the workplace occurring unknowingly, but which does exert its influence on future acting.

With each of these definitions, informal learning cannot be viewed as a teaching methodology, but the learning environment can be structured in such a way that informal learning is made probable. Geldens (2007) calls this a rich work- or learning-environment. Based on her research, she concludes that the mentoring and coaching structure, competencies, a continuous learning thread, and collaboration agreements between students and mentors are characteristics making a learning environment rich and powerful.

8. Training/Educational collaboration between school and institute

See other contributions in this knowledge base.

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What is known of the effectiveness of educational principles and methodologies?

Jan van Tartwijk, Klaas van Veen and Jan Vermunt

Problems of prospective teachers and educational pedagogies

Problems arising when educating future teachers are a.o.: the profound misconceptions on teaching and learning undergraduates have, based on their own long-standing experiences as pupils; the practice shock beginning teachers experience when starting independent teaching, and which can lead to alienation from the theory taught them in the educational program; and the complexity of teaching which requires teachers to introduce simultaneously many different kinds of knowledge and skills to stimulate the learning of pupils with many different needs (Darling-Hammond, Hammerness, Grossman, Rust &Shulman, 2005).

During the past decades, educational pedagogies have been developed with the aim of helping future teachers to surmount these problems. In this contribution, a brief survey will be given of these pedagogies, and the available evidence on the effectiveness of their characteristic elements will be dealt with. For more extensive surveys, we refer to the report by the AERA Panel on Research and Teacher Education (Cochran-Smith & Zeichner, 2005), to the work of Darling-Hammond and Bransford and their colleagues (Darling-Hammond &Bransford, 2005), and to the recent report of the National Research Council (2010).

Educational pedagogies

In his oration, Jan Vermunt (2006) distinguishes a number of educational pedagogies as they were and still are being used in initial teacher education programs, and in teacher professionalization programs. Here, we focus on educational pedagogies especially used in initial teacher education.

Traditional Pedagogy

With the `traditional´ pedagogy, Vermunt refers to an approach in which students at the institute follow a number of individual `subjects´ (for example, about the school subject, its pedagogy, or educational theory), and the tests/examinations they have to pass. Often, a parallel school internship has to be done. Formerly, this was the standard program, but these days this is not or hardly ever used. In some foreign countries, it is however still standard practice.

Effectiveness: Coherence versus individual subjects

The actual effect of such traditional programs on the teaching practice of prospective teachers seems limited. On the basis of a survey of comparative studies, Darling-Hammond, Hammerness and their colleagues (2005) stress the importance for the effectiveness of programs of coherence and a consistent focus and message.

Case-based

In case-based pedagogy, the simulated practice is central and can be presented in a textual form as well as on video. Micro-teaching – the practicing of skills in e.g. a role play – can also be included in this pedagogy.

Effectiveness: Observation versus doing, cases, and feedback

Grossman (2005) refers to research demonstrating that working with cases can have a positive effect on the ability of prospective teachers to analyze teaching situations. As to microteaching, it appears that watching a teacher model what has to be practiced is often just as important to the learning of prospective teachers as the practicing itself. In addition, the quality of feedback appears to be of great importance to the effectiveness of such teaching.

Concern-based

In concern-based pedagogy, the student teachers´ own practice-teaching experiences are the starting-point for the training. It often concerns something not (yet) quite successful and about which the student teacher is dissatisfied. In almost all Dutch teacher-education programs, but certainly in programs built on a concern-based pedagogy, reflection (systematic analysis of one´s own experiences) of student-teachers occupies a prominent place.

Effectiveness: Reflection

Concerning reflection, the work of Fred Korthagen ((Korthagen,Tigchelaar & Wubbels, 2001) is being much used, and to a lesser extent that of Geert Kelchtermans (Kelchtermans, 1991; 2001). Research shows that reflection can make sense, if it is thoughtfully taught and mentored (Grossman, 2005; Brouwer & Korthagen, 2005), Recent research shows positive effects on the development of future teachers when they are stimulated to reflect on their successful experiences instead of on their failures (Janssen, de Hullu & Tigchelaar, 2008)

Competency-based

In competency-based pedagogy, the focus is on student-teachers systematically working towards a pre-formulated competency profile, drawn up in collaboration with the professional field. In the Netherlands, the teaching-competencies profile is laid down in the ´Beroepen in het Onderwijs´ (´wet BIO´, the Teaching Professions Act). In competency-based teaching, much use is made of realistic professional tasks. Learning paths – often laid down in ´Persoonlijke Ontwikkelingsplannen´- POPs (Personal Growth Plans) – are matched to the beginner´s level, to the individual, and the learner´s situation.

Effectiveness: Portfolios

In competency-based pedagogy, the mid-term and final assessment of the achieved end level is generally based on the manner in which assignments are carried out in practice. In that case, a

portfolio in which this is made manifest has the function of an assessment tool, with which – better than with other instruments – the situational context possibilities and restrictions in which the prospective teacher carries out his assignments can be taken into account (Shulman, 1998). In medical education, where portfolios are also much used, research is available showing that an adequate assessment on the basis of portfolios is possible (Driessen, van Tartwijk, van der Vleuten & Wass, 2007). In portfolios, reflections are also frequently found on the growth that becomes visible when evidence is gathered over a longer time span. It then concerns the process of making sense of experiences that takes place during the writing of the portfolio (Mansvelder-Longayroux, Beijaard & Verloop, 2002). Mansvelder-Longayroux, Beijaard & Verloop (2002) examined the nature of reflection in portfolios. They concluded that in those reflections student teachers are relatively little focused on the better understanding of situations and developments that have occurred.

Learning communities and Mastery-focused pedagogies

Other pedagogies distinguished by Vermunt are *Learning communities,* in which e.g. teachers work together on the development of teaching, and *Mastery-focused pedagogy,* focusing on theoretical deepening and buttressing of one´s own work as a teacher by conducting practice research. These pedagogies are especially used when it regards more experienced teachers, but collaboration in the development of teaching or conducting research also occurs in initial programs (particularly in secondary education).

Effectiveness: Practice research

Practice research can be viewed as a profound kind of reflection, in which it is attempted in an intentional, systematic, and as much as possible controlled manner to develop a better comprehension of one´s own practice. What is (still) absent however is large-scale comparative research showing what doing research oneself contributes to the quality of prospective teachers (Grossman, 2005).

Mentored teaching in the School Practice

In almost all educational pedagogies, practice teaching occupies a prominent place. All sorts of variants can be distinguished, such as internships and salaried part-time – or full-time positions differing in the extent to which student teachers are being mentored, carry the responsibility for the lessons given, and are seen as a full-fledged member of the teaching staff. Recently, attempts have been made to embed this learning more structurally in the school, without losing sight of the link with the teacher-education program. Such initiatives are known as ´educating together ´ and ´(academic) teaching schools´ (cf. Melief, Beijaard, Buitink, Meijer, & Van Veen, 2009). Here, there is also the assumption that learning together with colleagues and from colleagues provides a powerful learning environment.

Effectiveness: Mentored teaching

Research shows that mentored teaching is of major importance in learning the profession (Grossman, 2005). Dutch research (Brouwer & Korthagen, 2005; Koetsier & Wubbels, 1995) shows

that the effect of the practice shock can be lessened by a gradual immersion into the teaching practice, in which students are not thrown into the deep end right away but gradually assume more and more responsibility, combined with a well thought-out linking of theory to practice experiences (Korthagen, Kessels, Koster, Lagerwerf & Wubbels, 2001).

Finally

On the basis of their review of available American research into the effectiveness of teacher education programs, the AERA Panel on Research and Teacher Education concludes there is still relatively little hard evidence about the effect of teacher education programmes, and that in addition there is still much uncertainty about how these effects have to be determined (Cochran-Smith & Zeichner, 2005; National Research Council, 2010). Apart from the fact that the panel formulates a research agenda, and suggests that research is an important source for taking decisions about the programming of teacher education courses, it also warns that applying the research results demands careful interpretation. The results of research should not be treated as a cookery book, but rather as ingredients for innovations in which educators, schools, and students should have their say. Research into educational innovation shows that designing policy on the basis of what generally speaking works is in itself not sufficient for success. Successful educational innovation also demands commitment and – preferably still – ownership of the people concerned (Fullan, 2007).

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Appendix: Table with domains and guiding questions

Domains	***Leading questions***
Core domains	
Profession: teacher educators	What is specific to the teacher educator's profession? What types of teacher educators can be distinguished? How do you become a teacher educator? How do you keep developing as a teacher educator?
Pedagogy of teacher education	What pedagogical approaches are there in teacher education? What educational principles can be distinguished? What educational methodologies are available? What is known of the effectiveness of educational principles and methodologies?
Learning and learners	Learning, what is that? How does learning take place in a professional context What is the significance of heterogeneity for learning? Learning together, how does that work? How do I know if someone did learn something?
Teaching and guiding	Teaching, what is that? Guiding, what is that? How do you take into account different ages and experiences? How do you promote collaborative learning? When does teaching work?
Specialisation domains	
Subject-specific didactics	Which subject didactic approaches exist? Which approaches to a school subject or learning area can be distinguished? How do you, as a teacher educator, support the student-teacher with his or her development as a subject teacher? How do you integrate subject didactics and educational sciences within teacher education? How do you keep developing your didactic knowledge?
Program-specific teacher education	What is specific about a student in a Bc program for primary education, a Bc program for secondary education and in Masters program? What distinguishes teacher educators for primary and secondary education? How do teacher educators in HE-institutes and teacher educators in schools distinguish themselves?
Extended domains	
Context	What does the teacher education structure look like? What does the policy field around teacher education look like? What does the content network around teacher education consist of? How is the level and quality of teacher education guaranteed? What are recent policy developments and trends with regard to teacher education?
Organisation	How are the teacher training programs organised internally and what is the role of the teacher educator within it? How is the relationship with the schools organised? What opportunities are there for professionalising as a teacher educator? How is quality assurance of teacher education programs structured?
Curriculum development	*Why do you develop a curriculum and what is a curriculum then?* *How do you make a good curriculum?*

	How do you guarantee the quality of a curriculum? *How do you assess whether the objectives of the curriculum are being achieved?*
Research	Why research into your own practice and what is the meaning of it? What is specific about this research? What should you be able to do for research into practice? What are the results and outcomes of teacher educator research? Who does the research belong to and what are the results?